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FAST METHOD FOR CALCULATING POWERS OF TWO AS A FLOATING POINT DATA TYPE

ABSTRACT OF THE DISCLOSURE

A computing system is adapted to calculate an exponent portion of a floating point data type, and is preferably employed in calculating powers of two in a computer language processing environment supporting a union declaration functionality and a left shift functionality. Accordingly, an input receives an exponent value, and a bias application module biases the exponent value based on a selected precision of a floating point data type. Also, a storage module stores the exponent value in a storage variable having a size determined based on the selected precision. Further, a left shift application module shifts the exponent value left by a number of bits determined based on the selected precision. Finally, an output returns the storage variable as the floating point data type having the selected precision.